

WHAT IS CLAIMED IS:

1. An imaging device for forming a parallax image string including a plurality of image data containing
5 parallax information by capturing images of an object, comprising:

10 a controller for enabling to capture the images of said object while moving a viewing point of said imaging device on the basis of a time spatial parameter indicative of time and/or spatial information that is supplied from outside and is necessary at the time of imaging, and to form said parallax image string.

15 2. The imaging device according to claim 1, further comprising:

a storage device for storing various time spatial parameters interconnected via a network, wherein

20 said controller reads out a first time spatial parameter required at the time of imaging from said various time spatial parameters stored in said storage device.

25 3. The imaging device according to claim 2, wherein said controller causes said parallax image string of captured images and said first time spatial parameter corresponding thereto to be supplied to said storage device and stored therein in association therebetween.

30 4. The imaging device according to claim 3, wherein said parallax image string and said time spatial parameter stored in said storage device under control of

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said controller are supplied to a holographic stereogram producing device for producing a holographic stereogram, and are used as a second time spatial parameter required for producing the holographic stereogram.

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5. The imaging device according to claim 1, wherein said controller reads out a first time spatial parameter required at the time of image capturing from various time spatial parameters recorded in a recording medium loaded in said imaging device.

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6. The imaging device according to claim 5, wherein said controller controls to record a parallax image string of captured images and the first time spatial parameter corresponding thereto on said recording medium.

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7. The imaging device according to claim 6, wherein said parallax image string and said first time spatial parameter corresponding thereto recorded on said recording medium by means of said controller are supplied to a holographic stereogram producing device for producing a holographic stereogram so as to be used as a second time spatial parameter which is required at the time of producing said holographic stereogram.

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8. The imaging device according to claim 1 wherein said time spatial parameter comprises pieces of information indicating imaging conditions.

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9. The imaging device according to claim 8 wherein said time spatial parameter comprises an imaging time, an

imaging angle, an imaging distance indicative of a positional relation between an image capturing point and the object, a translation motion distance and/or an imaging pitch.

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10. The imaging device according to claim 1 wherein said parallax image string comprises one of motion picture image data and a plurality of 2-dimensional still picture image data.

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11. A method of imaging of an object using an imaging device for forming a parallax image string including a plurality of image data containing parallax information, comprising the steps of:

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capturing images of said object while moving a viewing point of said image capturing device in a direction of translation motion on the basis of a time spatial parameter indicative of time and/or spatial information, said time spatial parameter being read in from outside as required at the time of image capturing; and

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forming said parallax image string.

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12. The method of imaging according to claim 11, wherein said imaging device is interconnected to a storage device for storing various time spatial parameters via a network, comprising the steps of:

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reading a first time spatial parameter from said various time spatial parameters stored in said storage device, which becomes necessary at the time of image capturing; and

supplying said first time spatial parameter to said imaging device.

13. The method of imaging according to claim 12,
5 comprising the step of supplying the parallax image string of said captured image and said first time spatial parameter corresponding thereto to said storage device to be stored therein.

10 14. The method of imaging according to claim 13, comprising the steps of:

supplying said parallax image string and said first time spatial parameter corresponding thereto, having been supplied from said imaging device to said storage device
15 and having been stored therein, to a holographic stereogram producing device for producing a holographic stereogram; and

using said first time spatial parameter supplied as a second time spatial parameter required at the time of
20 producing said holographic stereogram.

15. The method of imaging according to claim 11, comprising the steps of:

reading out a first time spatial parameter required
25 at the time of capturing images from said various time spatial parameters recorded in a recording medium loaded in said imaging device; and

supplying said first time spatial parameter to said imaging device.

30 16. The method of imaging according to claim 15,

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comprising the step of recording the parallax image string of captured images and the first time spatial parameter corresponding thereto on said recording medium.

5 17. The method of imaging according to claim 16, comprising the steps of:

supplying said parallax image string and said first time spatial parameter corresponding thereto recorded on said recording medium to a holographic stereogram producing device for producing a holographic stereogram; and

using said first time spatial parameter as a second time spatial parameter required at the time of producing said holographic stereogram.

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18. The method of imaging according to claim 11, wherein said time spatial parameter comprises pieces of information indicative of imaging conditions of said image capturing device.

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19. The method of imaging according to claim 18, wherein said time spatial parameter comprises an imaging timing of said imaging device, an imaging angle, an imaging distance indicative of a positional relation between an image capturing point thereof and said object, a distance of translation motion and/or an imaging pitch thereof.

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20. The method of imaging according to claim 11, wherein said parallax image string comprises one of motion picture image data and a plurality of 2-dimensional still picture image data.

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21. An image producing device for producing a parallax image string including a plurality of computer graphics data containing parallax information, comprising a
5 controller for enabling to capture images of an object while moving a viewing point of a virtual imaging device on the basis of a time spatial parameter indicative of pieces of time and/or spatial information, said time spatial parameter being read from external and needed at
10 the time of forming an image, and accordingly to produce said parallax image string.

22. The image producing device according to claim 21, comprising a storage device for storing various time
15 spatial parameters, interconnected therewith via a network, wherein said controller reads out a first time spatial parameter from said various time spatial parameters stored in said storage device, said first time spatial parameter being required at the time of producing
20 an image.

23. The image producing device according to claim 22, wherein said controller supplies the parallax image string formed and the first time spatial parameter
25 corresponding thereto to said storage device to be stored therein.

24. The image producing device according to claim 23, wherein said parallax image string and said first time
30 spatial parameter corresponding thereto, having been supplied and stored in said storage device under control

of said controller, are supplied to a holographic stereogram producing device for producing a holographic stereogram in which said first time spatial parameter supplied is used as a second time spatial parameter
5 required at the time of producing said holographic stereogram.

25. The image producing device according to claim 21, wherein said controller reads out a first time spatial parameter required at the time of producing the image from said various time spatial parameters stored in a recording medium loaded in said image producing device.

15 26. The image producing device according to claim 25, wherein said controller records the parallax image string produced therein and the first time spatial parameter corresponding thereto on said recording medium in association therebetween.

20 27. The image producing device according to claim 26 wherein said parallax image string and said time spatial parameter corresponding thereto recorded on said recording medium in association therebetween are supplied under control of said controller to a holographic
25 stereogram producing device for producing a holographic stereogram in which said first time spatial parameter is used as a second time spatial parameter required at the time of producing said holographic stereogram.

30 28. The image producing device according to claim 21, wherein said time spatial parameter comprises pieces of

information indicative of imaging conditions of said virtual imaging device.

29. The image producing device according to claim 28,
5 wherein said time spatial parameter comprises an imaging timing of said virtual imaging device, an imaging angle, an imaging distance indicative of a positional relation between an image capture point thereof and said object, a translation motion distance and/or an imaging pitch
10 thereof.

30. The image producing device according to claim 21,
wherein said parallax image string comprises one of motion picture image data and a plurality of 2-
15 dimensional still picture image data.

31. A method of imaging for forming a parallax image string including a plurality of computer graphics data containing parallax information, comprising the steps of:
20 capturing images of an object while moving a viewing point of a virtual imaging device on the basis a time spatial parameter indicative of time and/or spatial information, said time spatial parameter being supplied from outside and required at the time of forming an
25 image; and
forming said parallax image string.

32. The method of imaging according to claim 31, further including a storage device for storing various time
30 spatial parameters interconnected via a network, wherein the method further comprises the step of reading out a

first time spatial parameter required at the time of forming an image from said various time spatial parameters stored in said storage device.

5 33. The method of imaging according to claim 32, further comprising the step of supplying the parallax image string formed and the first time spatial parameter corresponding to said parallax image string to said storage device to be stored therein.

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34. The method of imaging according to claim 33, further comprising the steps of: supplying said parallax image string and said first time spatial parameter corresponding thereto stored in said storage device to the holographic stereogram producing device; and producing a holographic stereogram using said first time spatial parameter as a second time spatial parameter required at the time of producing said holographic stereogram.

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35. The method of imaging according to claim 31, further comprising the step of reading out a first time spatial parameter required for forming images from said various time spatial parameters recorded on a recording medium.

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36. The method of imaging according to claim 35, comprising the step of recording a parallax image string produced and the first time spatial parameter corresponding thereto on said recording medium.

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37. The method of imaging according to claim 36,

comprising the steps of:

supplying the parallax image string and said first time spatial parameter corresponding thereto recorded on said recording medium to the holographic stereogram

5 producing device; and

using said first time spatial parameter as a second time spatial parameter required at the time of producing a holographic stereogram.

10 38. The method of imaging according to claim 31, wherein said time spatial parameter comprises information indicating an imaging condition for said virtual imaging device.

15 39. The method of imaging according to claim 38, wherein said time spatial parameter comprises: an imaging timing of said virtual imaging device; an imaging angle; an imaging distance indicative of a positional relation between an imaging point of said virtual imaging device and said object; and a distance of translation motion of said virtual imaging device and/or an imaging pitch thereof.

20 40. The method of imaging according to claim 31, wherein said parallax image string comprises one of motion picture image data and a plurality of 2-dimensional still picture image data.

25 41. An image producing device for producing another
30 parallax image string by executing a synthesizing processing on a parallax image string including a

plurality of image data each containing parallax
information, comprising a controller for enabling a
plurality of different parallax image strings having an
identical time spatial parameter indicative of time
5 and/or spatial information therebetween to be addressed
to as an object of synthetic operation, and outputting
said another parallax image string produced by said
synthesizing processing in association with said time
spatial parameter.

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42. A method of producing another parallax image string
by executing a synthesizing processing on a parallax
image string including a plurality of image data each
containing parallax information, comprising the steps of:
15 processing a plurality of different parallax image
strings having an identical time spatial parameter
indicative of time and/or spatial information
therebetween as an object of synthetic operation, and
outputting said another parallax image string produced by
20 said synthesizing processing in association with said
time spatial parameter.

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